UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/078,013	02/19/2002	Joseph Philip Bigus	IBM / 201DV1	3985

26517	7590	02/24/2006		

WOOD, HERRON & EVANS, L.L.P. (IBM)
2700 CAREW TOWER
441 VINE STREET
CINCINNATI, OH 45202

EXAMINER
MITCHELL, JASON D

ART UNIT	PAPER NUMBER
2193	

DATE MAILED: 02/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
	10/078,013	BIGUS ET AL.
Office Action Summary	Examiner	Art Unit
	Jason Mitchell	2193

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 November 2005*.

2a)☒ This action is **FINAL.**   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-12,14-18 and 20-22* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-12,14-18 and 20-22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date *12/21/05*.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

U.S. Patent and Trademark Office

PTOL-326 (Rev. 7-05)   Office Action Summary   Part of Paper No./Mail Date 20060120

DETAILED ACTION

This application is a divisional of U.S. patent application 10/021,203 filed on 10-30-2001.

This action is in response to remarks filed 12/21/05

At Applicant's request, Claims 1, 8, 14, 15, 18, and 20 have been amended, claims 13, and 19 have been canceled and claims 21 and 22 have been added. Claims 112, 14-18 and 20-22 are pending in this case.

Response to Arguments

Corrections:

As was noted by Applicant (footnote 1 on pg. 10), the previous office action omitted claims 18 and 19 in the 35 USC 102(b) rejection heading under which they were treated. To the extent that the rejections still apply, this omission is corrected in this action.

As was noted by applicant (footnote 2 on pg. 10), the previous office action incorrectly credited Janis et al. as the disclosure relied upon, when the citations were actually taken from Gaisford et. al. To the extent that the rejections still apply, this action corrects this error, to the extent that the rejections still apply.

As was noted by Applicant (footnote 3 on pg. 10), the previous office action listed claims 16-17 and 20 as rejected under 35 U.S.C. 103(a) for being unpatentable over Hoff et al. Applicant is correct in his assumption that these claims should have been rejected over

Gaisford at al. in view of Hoff et al. To the extent that the rejections still apply this action

corrects this error.

Applicant's arguments on pg. 11 regarding the Examiners refusal to consider the

Information Disclosure Statements are persuasive and the documents will be

considered.

Applicant's amendments to claims 8, 15 and 18 are sufficient to over come the

USC 101 rejections of those claims. Consequently the corresponding rejections have

been with drawn.

Applicant's arguments on pp. 8-10 with respect to claim 1 have been considered

but are moot in view of the new ground(s) of rejection.

Applicant's arguments on pp. 10-12 with respect to claim 8 have been considered

but they are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly
> claiming the subject matter which the applicant regards as his invention.

The term "a degree of autonomy" in claims 1, 8, 15, and 18, is a relative term,

which renders the claim indefinite. The term "a degree of autonomy" is not defined

by the claim, the specification does not provide a standard for ascertaining the requisite

degree, and one of ordinary skill in the art would not be reasonably appraised of the

scope of the invention.

Pg. 3, lines 26-31 of Applicant's specification states, in part, "a user, or client, entrusts

an agent to handle tasks with at least a certain degree of autonomy" and "Intelligent

agents operate with varying degrees of constraints depending upon the amount of

autonomy delegated to them by a user". This disclosure does not indicate any bounds

on the amount of autonomy, which must be delegated, to a software object to make that

software object constitute an "intelligent agent". Because all computer programs

execute with some amount of autonomy (i.e. executing a consecutive series of

instructions without requiring direction from a user) the language "a degree of

autonomy" fails to provide a patentable distinction between "intelligent agents" and

generic computer programs.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-12, 14-15, 18, and 21-22 are rejected under 35 U.S.C. 103(a) as being

unpatentable over "Mobile Intelligent Agents for the Management of the

Information Infrastructure" by Covaci et al. (Covaci) in view of US 6023,586 to

Gaisford et al. (Gaisford).

Regarding Claims 1 and 18: Covaci discloses a memory within which is resident a

plurality of intelligent agents (pg. 4, col. 1 'an agent ... is stored within the context

object'), wherein each intelligent agent is configured to execute within at least one agent

runtime (Section 3.1 Agency), wherein at least one intelligent agent is a mobile

intelligent agent capable of being distributed to a remote agent runtime resident in

another computer (Section 3.2 Agent), wherein each agent runtime executes in an

operating system environment (pg. 3, col. 2 'The JavaVM is available on all common

computing platforms'), and program code configured to control distribution of an

intelligent agent to the remote agent runtime in response to a request to access such

mobile intelligent agent (pg. 2, col. 1 'delegating management solutions on demand').

Further Covaci discloses security information associated with each intelligent agent (pg.

3, col. 2 'security'), but does not explicitly mention distribution control.

Gaisford teaches distribution control information associated with a software object that

defines distribution rights of the software object (col. 9, lines 25-33 'Distribution-

controlling data') and program code configured to control distribution of the software

object in response to a request to access software based upon the distribution control

information associated with such mobile intelligent agent (col. 9, lines 49-54 'review a

distribution list').

It would have been obvious to a person of ordinary skill in the art at the time of the

invention to use the distribution control information taught in Gaisford to implement the

security facilities of Covaci's mobile intelligent agents (pg. 3, col. 2 'security') because

'Security is a big issue in the management of the Global Information Infrastructure'

(Covaci pg. 9, col. 1) and Gaisford's 'distribution objects 80' provide 'security

information, such as access lists, right-to-know data ... or the like' (col. 9, lines 25-33).

Regarding Claim 8: Covaci discloses a plurality of intelligent agents (pg. 4, col. 1 'an

agent ... is stored within the context object') each with a degree of autonomy delegated

thereto, each configured to perform computer related product support operations (pg. 4,

col. 2 'Each IA ... realizes the inference procedure on the management knowledge of

the IA and finds out/initiates the appropriate management solutions'). Further Covaci

discloses security information associated with each intelligent agent (pg. 3, col. 2

'security'), but does not explicitly mention distribution control.

Gaisford teaches memory distribution control information that defines distribution rights

to each of a plurality of intelligent agents (col. 9, lines 25-33 'Distribution-controlling

data') wherein the distribution control information identifies a first software object as an

internal agent configured to execute on a product support computer (col. 6, A

workstation node 58, 62 may conduct a distribution of a software object 100 to itself'),

and a second software object as an external agent configured to execute on a customer

computer (col. 6, A workstation node 58, 62 may conduct a distribution of a software

object 100 to ... some other node 52'); controlling distribution of a software object

among the plurality of software objects in response to a request to access such a

software object based upon the distribution control information associated with such a

software object, including prohibiting distribution of the first software object to the

customer computer based upon the distribution control information associated therewith

and permitting distribution of the second software object to the customer computer

based upon the distribution control information associated therewith (col. 9, lines 25-33

'security information, such as access lists, right-to-know data, or need-to-know data;

and the like') .

It would have been obvious to a person of ordinary skill in the art at the time of the

invention to use the distribution control information taught in Gaisford to implement the

security facilities of Covaci's mobile intelligent agents (pg. 3, col. 2 'security') because

'Security is a big issue in the management of the Global Information Infrastructure'

(Covaci pg. 9, col. 1) and Gaisford provides 'security information, such as access lists,

right-to-know data ... or the like' (col. 9, lines 25-33).

Regarding Claims 2 and 9: The rejections of claims 1 and 8 are incorporated,

respectively; further Gaisford teaches the program code is further configured to set

distribution control information for an intelligent agent in connection with publishing the

intelligent agent (col. 13, lines 60-63 'the determination step ... as part of a publication

246').

Regarding Claims 3 and 10: The rejections of claims 2 and 9 are incorporated,

respectively; further Gaisford teaches the distribution control information is disposed in

a header for each intelligent agent (col. 9, lines 25-33 'Distribution-controlling data 80').

Regarding Claims 4 and 11: The rejections of claims 1 and 8 are incorporated,

respectively; further Gaisford teaches the distribution control information defines a

publishing level that prohibits distribution of an intelligent agent to another computer

(col. 9, lines 49-54 'review a distribution list 154 to determine whether or not ... to receive a distribution of a software object').

Regarding Claims 5 and 12: The rejections of claims 1 and 8 are incorporated, respectively; further The Covaci-Gaisford combination does not explicitly disclose a publishing level that permits distribution only in response to authorization from product support personnel.

However, Gaisford does teach distribution properties that are only available to support personnel (col. 15, lines 57-63 'properties ... only available to a system administrator') and that these properties include distribution rights (col. 15, lines 54-56 'distribution parameters 150 ... may be properties'). Additionally, Gaisford teaches providing a means to contact product support personnel (col. 10, lines 45-49 'Each contact record ... a person responsible for implementing a distribution').

It would have been obvious to a person of ordinary skill in the art at the time of the invention to provide a system where a potential recipient of the intelligent agent would be provided access to the agent only after contacting support personal (col. 10, lines 45-49 'a person responsible for implementing a distribution'), and convincing said support personal to alter the rights (col. 15, lines 57-63 'properties ... only available to a system administrator') thereby providing additional control and flexibility to the distribution system.

Regarding Claim 6: The rejection of claim 1 is incorporated; further Covaci discloses the plurality of intelligent agents are each configured to perform product support

operations in connection with supporting a computer-related product (pg. 4, col. 2

'initiates the appropriate management solutions').

Gaisford teaches the distribution control information identifies a software object as an

internal agent configured to execute on a product support computer (col. 6, A

workstation node 58, 62 may conduct a distribution of a software object 100 to itself'),

and a second software object as an external agent configured to execute on a customer

computer (col. 6, A workstation node 58, 62 may conduct a distribution of a software

object 100 to ... some other node 52').

Regarding Claims 7 and 14: The rejections of claims 6 and 8 are incorporated,

respectively; further Gaisford teaches the distribution control information further

identifies a third intelligent agent as a base agent associated with a particular release of

the computer-related product (col. 14, lines 44-49 'maintenance methods 254 include

monitoring ... the distribution methods').

Regarding Claim 15: Covaci discloses (a) an intelligent agent (pg. 4, col. 1 'an agent

... is stored within the context object') configured for use in performing a product

support operation in connection with supporting a computer-related product (pg. 4, col.

2 'Each IA ... realizes the inference procedure on the management knowledge of the IA

and finds out/initiates the appropriate management solutions') wherein the intelligent

agent has a degree of autonomy delegated thereto. Further Covaci discloses security

information associated with each intelligent agent (pg. 3, col. 2 'security'), but does not

explicitly mention distribution control. Further Covaci discloses security information

associated with each intelligent agent (pg. 3, col. 2 'security'), but does not explicitly

mention distribution control.

Gaisford teaches (b) a header associated with the intelligent agent (col. 9, lines 25-33

'Distribution-controlling data 80'), the header including distribution control information

that defines distribution rights to the intelligent agent (col. 9, lines 49-54 'review a

distribution list'), the distribution control information identifying a publishing level

selected from among a first publishing level that characterizes the intelligent agent as

an internal agent configured to execute on a product support computer (col. 7, lines 62-

65 'The software objects 100, 102 may be distributed by a workstation node 58 to ... the

workstation node 58'), and a second publishing level that characterizes the intelligent

agent as an external agent configured to execute on a customer computer configured to

utilize the computer-related product (col. 7, lines 62-65 'The software objects 100, 102

may be distributed by a workstation node 58 to other nodes 52'), wherein the first

publishing level prohibits distribution of the intelligent agent to a customer computer

(col. 6, A workstation node 58, 62 may conduct a distribution of a software object 100 to

itself') and the second publishing level permits distribution of the intelligent agent to a

customer computer (col. 6, A workstation node 58, 62 may conduct a distribution of a

software object 100 to ... some other node 52); and (c) a tangible computer readable

medium bearing the header and the intelligent agent (Fig. 4, Memory Device).

It would have been obvious to a person of ordinary skill in the art at the time of the

invention to use the distribution control information taught in Gaisford to implement the

security facilities of Covaci's mobile intelligent agents (pg. 3, col. 2 'security') because

'Security is a big issue in the management of the Global Information Infrastructure'

(Covaci pg. 9, col. 1) and Gaisford provides 'security information, such as access lists,

right-to-know data ... or the like' (col. 9, lines 25-33).

Regarding Claims 21-22: The rejection of claims 6 and 8 are incorporated; further

Covaci discloses at least a subset of the plurality of intelligent agents is configured to

access a knowledge base (pg. 7, col. 2 'The run() method in fact implements an

inference upon the management knowledge'), further it would at least have been

obvious to including information collected from a plurality of customers in this

knowledge base (pg. 5, col. 1 'numerous players can contribute') because 'to cope with

the complexity of the management scenarios, an enormous amount of very complicated

knowledge has to be used' (pg. 5, col. 1).

Claims 16-17 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable

over "Mobile Intelligent Agents for the Management of the Information

Infrastructure" by Covaci et al. (Covaci) in view of US 6,0232,586 to Gaisford et al.

(Gaisford) in view of "The Open Software Description Format" (OSD) by Hoff et al.

Regarding Claim 16: The rejection of claim 15 is incorporated; further the Covaci-

Gaisford combination does not explicitly disclose the header is defined in a markup

language.

OSD teaches using XML (Abstract 'OSD, an application of the eXtensible Markup

Language') for the purposes of managing metadata regarding software distribution

(Abstract 'We expect OSD to be useful in automated software distribution').

It would have been obvious to a person of ordinary skill in the art at the time of the invention to manage Gaisford's distribution-control data (col. 9, lines 25-33 'Distribution-controlling data') using XML as taught by OSD (Abstract 'OSD, an application of the eXtensible Markup Language') if it were determined that Gaisford's directory service (Abstract 'A directory services system is responsible for maintaining ... a distribution object') was not desirable.

Regarding Claim 17: The rejection of claim 16 is incorporated; further OSD teaches the header is defined in XML (Abstract 'OSD, an application of the eXtensible Markup Language').

Regarding Claim 20: The rejection of claim 18 is incorporated; further Gaisford discloses the program code is configured to access the distribution control information for such intelligent agent by accessing a header associated with such intelligent agent (col. 9, lines 25-33 'Distribution-controlling data 80'), but the Covaci-Gaisford combination does not disclose the header is defined in a markup language.

OSD teaches using XML (Abstract 'OSD, an application of the eXtensible Markup Language') for the purposes of managing metadata regarding software distribution (Abstract 'We expect OSD to be useful in automated software distribution').

It would have been obvious to a person of ordinary skill in the art at the time of the invention to manage Gaisford's distribution-control data (col. 9, lines 25-33 'Distribution-controlling data') using XML as taught by OSD (Abstract 'OSD, an application of the eXtensible Markup Language') if it were determined that Gaisford's directory service

(Abstract 'A directory services system is responsible for maintaining ... a distribution object') was not desirable.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason Mitchell whose telephone number is (571) 272-3728. The examiner can normally be reached on Monday-Thursday and alternate Fridays 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Kakali Chaki can be reached on (571) 272-3719. The fax phone number for

the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published

applications may be obtained from either Private PAIR or Public PAIR. Status

information for unpublished applications is available through Private PAIR only. For

more information about the PAIR system, see http://pair-direct.uspto.gov. Should you

have questions on access to the Private PAIR system, contact the Electronic Business

Center (EBC) at 866-217-9197 (toll-free).

Jason Mitchell
2/8/06

KAKALI CHAKI
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100